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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

11/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/522,359	Applicant(s) HAMAD ET AL.	
	Examiner Lawrence D. Ferguson	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 06 July 2009.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-3,6,8,18,20-25,27,31 and 33-44 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-3,6,8,18,20-25,27,31 and 33-44 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed July 6, 2009. Claims 1, 18, 25 and 37-38 were amended and claims 26 and 32 were cancelled, rendering claims 1-3, 6, 8, 18, 20-25, 27, 29, 31 and 33-44 pending in this case.

New Matter - 35 U.S.C. 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3, 6, 8, 18, 20-27, 29 and 31-44 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 1, 18, 25, the phrase 'spaced crack-arresting islands that impede crack propagation' is not supported by the specification. Additionally, in claim 44, the phrase, 'crack-arresting islands that impede crack propagation and fracturing in said web without adversely affecting the modulus of elasticity and tensile strength' is not supported by the specification.

In claims 1 and 18, the phrase, 'suitable for subsequent coating and printing' is not supported by the specification.

Objection to specification

4. The amendment filed July 6, 2009, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The paragraph beginning with line 29 on page 4 and ending with line 3 on page 5 was amended to include "forming spaced crack-arresting islands that impede crack propagation in the web while other mechanical properties such as tensile strength and elasticity modulus experience no change." Additionally, the third full paragraph ending with line 22 on page 7 was amended to include "impregnated into the web to form a plurality of spaced apart discrete areas distributed over said web, said polymer-impregnated areas forming crack-arresting islands that impede crack propagation and fracturing in said web without changing other properties of the paper or board, such as the modulus of elasticity and tensile strength. The polymer material penetrates into the web to form a substantially uniform flush surface for subsequent treatment such as coating and printing." Although Applicant amended with the intent of supporting the amended claim language from the amendments filed February 24, 2009, which included 'spaced crack-arresting islands that impede crack propagation' in claims 1, 18, 25 and 'crack-arresting islands that impede crack propagation and fracturing in said web without adversely affecting the

modulus of elasticity and tensile strength' in claim 44 along with the amendment filed July 6, 2009, which includes 'is uniform and suitable for subsequent coating and printing' in claims 1 and 18, the amendments to the paragraph beginning with line 29 on page 4 and ending with line 3 on page 5 and the third full paragraph ending with line 22 on page 7 are clearly new matter.

Applicant is required to cancel the new matter in the reply to this Office Action.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections – 35 USC § 103(a)

6. Claims 1-3, 6, 18, 20-25, 27, 29, 33-38 and 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gentile et al. (U.S. 3,879,257).

Gentile discloses a cellulose papermaking fiber network web (column 5, lines 21-24 and column 9, lines 34-56) where at least one side of the web has bonding material disposed (applied), such as a latex blend or acrylonitrile butadiene, which is disposed part way through the web (impregnated) in a spaced apart pattern (column 5, lines 35-45, column 6, lines 18-32 and column 15, lines 1-5, 26-36). Gentile discloses about 3 percent of the bonding material is needed to impregnate the web (column 15, lines 39-50). Figures 5 and 6 show the geometrical formations define a plurality of discrete areas distributed over a web. Because Gentile discloses a cellulose fiber network web and 3%

of polymer material impregnating the web in discontinuous geometrical formations, it would have been obvious to one of ordinary skill in the art for the impregnated material to form spaced crack-arresting islands that impede crack propagation in the web to give a uniform surface, as shown in Figures 5-6, as in claims 1, 3, 6, 18, 25 and 29. In claims 1 and 18, the phrase, "suitable for subsequent coating and printing" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform.

Concerning claims 2 and 20, Gentile discloses the bonding material can be a latex blend or acrylonitrile butadiene (column 15, lines 1-5, 26-36), which are thermoplastic materials.

Concerning claims 21, 33 and 43, Gentile discloses the cellulosic fibers are pulp fibers (column 9, lines 35-49).

Concerning claims 22 and 34, the bonding material is applied in a recticular pattern (column 14, lines 36-40).

Concerning claims 23, 27 and 35, Figure 5 shows equi-distant circle geometrical formations.

Concerning claims 24 and 36, Figure 6 shows diamond-shaped geometrical formations.

Concerning claims 37-38, the phrase, "wherein the paper or board comprises calendered paper or board" introduces a process limitation to the product claim. The patentability of a product does not depend on its method of production. If the product in

the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Further, process limitations are given little patentable weight in product claims.

Concerning claims 40-42, Gentile discloses printing the web (column 22, lines 3-6).

Concerning claim 44, Gentile discloses a cellulose papermaking fiber network web (column 5, lines 21-24 and column 9, lines 34-56) where at least one side of the web has bonding material, such as a latex blend or acrylonitrile butadiene, disposed part way through the web (impregnated) in a spaced apart pattern (column 5, lines 35-45, column 6, lines 18-32 and column 15, lines 1-5, 26-36). Gentile discloses about 3 percent of the bonding material is needed to impregnate the web (column 15, lines 39-50). Figures 5 and 6 show the geometrical formations define a plurality of discrete areas distributed over a web. Because Gentile discloses a cellulose fiber network web and 3% of polymer material impregnating the web in discontinuous geometrical formations, it would have been obvious to one of ordinary skill in the art for the impregnated material to form crack-arresting islands that impede crack propagation in the web without adversely affecting the modulus of elasticity and tensile strength of the paper. In claim 44, the phrase, “for subsequent treatment such as coating and printing” is an intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of

performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

In all of the above mentioned claims, the instant invention includes the preamble language of, "crack-resistant printing paper or board". Although the instant preamble has been considered, a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In the instant case, the preamble merely recites the intended use of a structure, and the body of the claim is able to stand alone; therefore, although the preamble has been considered, the preamble language has not been accorded patentable weight.

Response to Arguments

7. Applicant's arguments of the rejection made under 35 U.S.C. 112, first paragraph, has been considered but is unpersuasive. In claims 1, 18, 25, the phrase 'spaced crack-arresting islands that impede crack propagation' is not supported by the specification. Additionally, in claim 44, the phrase, 'crack-arresting islands that impede crack propagation and fracturing in said web without adversely affecting the modulus of

elasticity and tensile strength' is not supported by the specification. Although Applicant amended with the intent of supporting the amended claim language from the amendments filed February 24, 2009, which included 'spaced crack-arresting islands that impede crack propagation' in claims 1, 18, 25 and 'crack-arresting islands that impede crack propagation and fracturing in said web without adversely affecting the modulus of elasticity and tensile strength' in claim 44, the amendments to the specification at the paragraph beginning with line 29 on page 4 and ending with line 3 on page 5 and the third full paragraph ending with line 22 on page 7 are clearly new matter.

Applicant's arguments of the rejection made under 35 U.S.C. 103(a) as being unpatentable over Gentile et al. (U.S. 3,879,257) have been considered but are unpersuasive. Applicant argues it is not obvious for the impregnated material to form spaced crack-arresting islands that impede crack propagation in the web to give a uniform surface. Examiner maintains because Gentile discloses a cellulose fiber network web and 3% of polymer material impregnating the web in discontinuous geometrical formations, which is similar to the instantly claimed invention, it would have been obvious to one of ordinary skill in the art for the impregnated material to form spaced crack-arresting islands that impede crack propagation in the web to give a uniform surface, as shown in Figures 5-6. Applicant further argues Gentile is directed to an entirely different invention than a crack-resistant paper or board, which is the preamble of the instant invention. In all of the rejected claims, the instant invention includes the preamble language of, "crack-resistant printing paper or board". In the

instant case, the preamble merely recites the intended use of a structure, and the body of the claim is able to stand alone; therefore, although the preamble has been considered, the preamble language has not been accorded patentable weight.

Applicant arguments regarding claims 8, 31 and 39 have been considered and based upon the amendments to the claims, the rejection over the claims is withdrawn.

Regarding claims 37-38, the phrase, "wherein the paper or board comprises calendered paper or board" introduces a process limitation to the product claim, where process limitations are given little patentable weight in product claims.

Applicant argues "printed web" in Gentile does not refer to "printing" in the usual sense. Examiner maintains Gentile discloses printing the web (column 22, lines 3-6).

Applicant argues Gentile does not teach the article is suitable for subsequent treatment such as coating and printing. The phrase, "suitable for subsequent coating and printing" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample, can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

/Lawrence Ferguson/
Patent Examiner, Art Unit 1794

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